

Remarks

The following remarks are in response to the Examiner's comments in the Detailed Action using the same paragraph numbers. Claims 1-15 are pending in the application. Claim 15 is an independent claim which is considered allowable by the Examiner.

1 The certified copy of the priority document will be submitted shortly.

4. Examiner has rejected claims 1, 6-8, 11, 12, and 14 as being anticipated by WO 95/10126 (referred to herein as the Khandkar reference). Applicant submits that claim, as amended, is not anticipated by the Khandkar reference.

Claim 1 and claim 7 have been amended to specify that the afterburner, heat exchanger and fuel processor of the present invention are wholly contained within a single housing, which together form what is referred to as an integrated module. It is important to consider that this integrated module is separate from the fuel cell stack. The prior art fails to teach this single integrated module which is separate from the fuel cell stack.

Khandkar teaches an afterburner as being a plenum which surrounds the fuel cell stacks. In other words, the fuel cell stacks, fuel processor (reformer) and air intake heat exchange are all enclosed within a furnace enclosure. The fuel and air exhaust enter this plenum enclosure and are combusted there, directly heating the fuel cell stack. Please note that the afterburner, fuel processor and heat exchanger components in Khandkar are not contained in a single discrete housing, separate from the fuel cell stacks.

Therefore, it is submitted that claims 1 and 7 are not anticipated by Khandkar and are patentable. The remaining claims (except claim 15) depend from claim 1 or 7.

5. Examiner has rejected claims 1, 6-8, 11, 12, and 14 as being anticipated by Diethelm. Applicant submits that claims 1 and 7, as amended, is not anticipated by the Diethelm.

Diethelm teaches a fuel cell block which contains a fuel cell, an afterburner chamber, a prereformer and a heat exchanger. However, Diethelm fails to teach or suggest the use of an integrated module to house the afterburner, prereformer and heat exchanger in a single discrete housing, separate from the fuel cells, as is claimed in the present invention. Diethelm teaches a similar concept as that taught by Khandkar.

Therefore, it is submitted that claims 1 and 7 are not anticipated by Diethelm and are patentable. The remaining claims (except claim 15) depend from claim 1 or 7.

6. Examiner has rejected claims 1, 6-8, 11, 12, and 14 as being anticipated by Fischer et al.. Applicant submits that claims 1 and 7, as amended, is not anticipated by the Fischer reference.

Fischer teaches a fuel cell system which has a porous catalytic afterburner which surrounds the fuel cell stack like a sleeve. The fuel and air exhaust are combusted as they pass through the afterburner and continue on to preheat incoming fuel and air flows. Please note that the afterburner is intimately associated with the fuel cell stack in the bottom half of the system shown in Figure 1 while the fuel processor and heat exchanger are separately contained in the top half of the system. Fischer fails to teach the claimed invention in two respects. First, the afterburner and fuel processor/heat exchanger are separated. Second, the three functional units are not contained in a single discrete housing free of the fuel cell stack, as is claimed in the present application.

Therefore, it is submitted that claims 1 and 7 are not anticipated by Fischer et al. and are patentable. The remaining claims (except claim 15) depend from claim 1 or 7.

Conclusion

It is respectfully submitted that the application is in condition for allowance and allowance thereof is requested.

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Respectfully submitted,
Pastula, Michael et al.,

By: 

Edward Yoo (Reg. No. 41,435)



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CORRESPONDENCE ADDRESS

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